



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,339	08/01/2003	Thomas Richards	08935-294001 / M-5029	4181
26161 7590 01/14/2009 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022				
EXAMINER				
ECHELMMEYER, ALIX ELIZABETH				
ART UNIT		PAPER NUMBER		
1795				
NOTIFICATION DATE		DELIVERY MODE		
01/14/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary

Application No.

10/633,339

Applicant(s)

RICHARDS ET AL.

Examiner

Alix Elizabeth Echelmeyer

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 51-55 and 59-89 is/are pending in the application.
- 4a) Of the above claim(s) 14, 71-82, 86 and 88 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15, 51-70, 83-85, 87 and 89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed November 4, 2008. Claims 1, 5-7, 51-53, 55, 59 and 63-65 have been amended. Claims 14, 71-82, 86 and 88 were previously withdrawn. Claims 16-50 and 56-58 were previously cancelled. Claims 1-13, 15, 51-55, 59-70, 83-85, 87 and 89 are rejected finally for the reasons given below.

Claim Rejections - 35 USC § 112

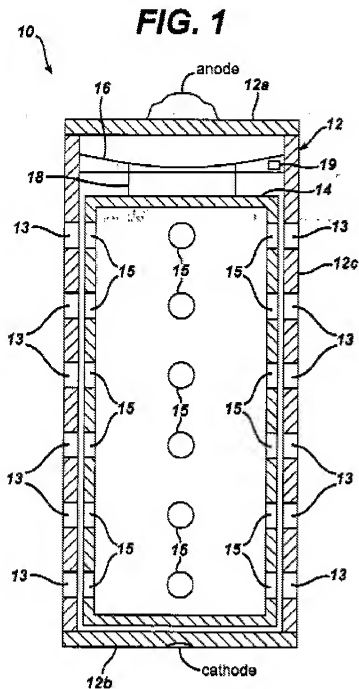
2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 51 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The limitations to the member whose shape deforms requiring that the member be coupled to only one of the first and second members was not described in the specification in such a way that the examiner believes that the inventors had possession of the claimed invention.

The examiner will refer to US 2005/0058887, the Patent Application Publication of the instantly filed invention, in the following discussion.

Based on the Applicant's arguments in the Remarks filed November 4, 2008, it appears that the Applicant has amended claims 1 and 51 to require that the member is coupled to only one of the first and second members and therefore is not coupled to both. The examiner directs Applicant's attention to Figures 1, 1A and 1B of the instant disclosure.



In paragraph [0023], it is disclosed that the actuator (16), or member, is coupled to one of the first and second members through and intermediate member. In the

claimed embodiment, pictured above, the actuator (16) is coupled to the second cylinder (14) through intermediate member (18). Yet, it is clear from Figure 1, above, that the actuator is attached also to the first cylinder (12).

The examiner holds that the member whose shape deforms *must* be coupled to *both* cylinders in order for the invention to function as intended. The invention works by moving one of the cylinders *with respect to* the other ([0022]). A shape changing member attached only to one of the cylinders would not move it with respect to the other, because one the other cylinder serves as an anchor for the shape changing member, as is clear from Figures 1A and 1B. As stated in the disclosure, the actuator (16) is coupled between inner sidewalls of the first cylinder and an intermediate member (18) that transfers force produced in the shape changing member (16) to the second cylinder (14) causing it to move ([0025]). The examiner understands from this statement that the shape changing member must be attached to both the first and second cylinders so that the force created by the shape change can be transferred to the cylinder that moves.

For the purposes of examination, the newly added amendment will not be interpreted as new matter, in the case that Applicant can show that it is supported by the specification, and the rejection will be made over that interpretation.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-13, 15, 51-55, 59-70, 83-85, 87 and 89 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As discussed above, the instant specification does not enable a shape changing member that is not coupled to both the first and second members. If the shape changing member was connected to only one of the members, a change in shape would not result in a change in position of one member with respect to the other.

Response to Arguments

6. Applicant's arguments concerning the deficiency of Johnson, specifically not teach that the shape changing member is coupled to only one of the members, have been considered but are moot in view of the new grounds of rejection, see above.
7. Applicant's arguments concerning the two shape changing members of Johnson, see page 11 of the remarks been fully considered but they are not persuasive. Applicant argues that the two shape changing members do not meet the limitations of the claims filed April 28, 2008. The examiner holds that the member of Johnson, containing two shape changing members and a rod, has the characteristic that its *shape deforms in*

response to a current drawn from the battery, as required in claim 1. Even though the rod never changes shape, the shape changing members have a change in shape in response to the current being drawn.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is (571)272-1101. The examiner can normally be reached on Mon-Fri 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795

Alix Elizabeth Echelmeyer
Examiner
Art Unit 1795

aee